

What is claimed is:

1. A method of fabricating an optical fiber preform comprising:

a porous core rod producing step for depositing a first cladding having an outer diameter D so as to surround a core having an outer diameter d to produce a porous core rod of  $D/d \geq 4.0$ , using vapor-phase axial deposition;

a core rod dehydrating step for dehydrating said porous core rod to reduce an OH group concentration in the porous core rod to 0.8 ppb or less by weight ratio after the porous core rod producing step;

a core rod vitrifying step for forming the porous core rod to be transparent and vitrified to form a vitrified core rod after the core rod dehydrating step;

a core rod stretching step for heating and stretching said vitrified core rod after the core rod vitrifying step;

a second cladding forming step for depositing a second porous cladding around the vitrified core rod by vapor-phase axial deposition after the core rod stretching step;

a second cladding dehydrating step for dehydrating the second porous cladding so as to reduce an OH group concentration to 50 ppm or less by weight ratio after the second cladding forming step; and

a second cladding vitrifying step for forming said second

porous cladding to be transparent and vitrified after the second cladding dehydrating step.

2. The method of fabricating the optical fiber preform according to claim 1, wherein the second cladding forming step is to deposit porous bodies of said second porous cladding so as to reduce a density of the porous bodies of the second porous cladding as becoming more distant from the center.

3. A method of fabricating an optical fiber comprising:  
a drawing step for drawing an optical fiber preform fabricated by the method of fabricating the optical fiber preform according to claim 1; and  
a holding step for holding the drawn optical fiber preform in a deuterium atmosphere for a predetermined period after the drawing step.